

Claims

1. A rotary leadthrough (D) of a robot arm, in particular of a fourth axle (4) of a Delta robot, in which the rotary leadthrough (D) has a housing (6) and a shaft (7), which is located in an axial leadthrough (60) of the housing (6) and is rotatably supported in that housing (6), for connection to the robot arm (4), characterized in that the housing (6) has at least one opening (61, 62) for cleaning the axial leadthrough (60), and the shaft (7), at least in a portion of its length, has a diameter which is less than the diameter of the axial leadthrough (60) in that region, so that there is a void (R) between the shaft (7) and the axial leadthrough (60).
2. The rotary leadthrough in accordance with claim 1, wherein at least two openings (61, 62) are located in a radial direction to the axial leadthrough (60).
3. The rotary leadthrough in accordance with claim 1, wherein the void is an annular gap (R).
4. The rotary leadthrough in accordance with one of claims 1 through 3, wherein the housing (6) has a cylindrical securing ring (64), which on least one and preferably on two diametrically opposed sides has a circular-segment-shaped groove (65); that the shaft (7) has an annular groove (73), which is aligned with the at least one circular-segment-shaped groove (65) in the same plane; and that the rotary leadthrough (D) has at least one segmental disk (66), which can be brought into engagement with one each

of the at least one circular-segment-shaped groove (65) and the annular groove (73) for rotatably supporting the shaft (7) in the housing (6).

5. The rotary leadthrough in accordance with claim 4, characterized in that the annular groove (R) is located in a cylindrical head (72) of the shaft (7), and the cylindrical head (72) has an outer diameter which corresponds to an inner diameter of the securing ring (64).

6. The rotary leadthrough in accordance with one of claims 1 through 5, wherein the shaft (7) has a connection journal (74) on one end, for securing to a joint (9), and a securing element (71), on a diametrically opposite end, for securing a grasping element.

7. The rotary leadthrough in accordance with claim 6, wherein the securing element (71) has a star-shaped body.

8. The rotary leadthrough in accordance with one of claims 1 through 7, wherein the housing (6) is made of plastic and/or the shaft (7) is made from an aluminum alloy.

9. The rotary leadthrough in accordance with one of claims 1 through 8, wherein a first of the at least two openings is a suction extraction opening (61), and at least a second of the at least two openings is an inflation opening (62), and the suction extraction opening (61) has a larger diameter than the inflation opening (62).

10. The rotary leadthrough in accordance with claim 9, wherein the suction extraction opening (61) and the inflation opening (62) are located at an angle of at least approximately 90° to one another.